

REMARKS

This Reply is in response to the Office Action mailed on October 4, 2005 in which Claims 1-44 were rejected. With this response, Claims 2, 9, 10 and 44 are cancelled and Claims 45-52 are added. Claims 1, 3-8, 11-43 and 45-52 are presented for reconsideration and allowance.

I. Specification Amendments.

During review of the specification, several typographical errors on pages 5, 10 and 11 of the specification were identified. With this response, such typographical errors are corrected. No new matter is believed to have been added.

II. Rejection of Claims 1-44 Under 35 U.S.C. § 103 Based Upon Hogue and Fantone.

Paragraph 2 of the Office Action rejected Claims 1-44 under 35 U.S.C. § 103 as being unpatentable over Hogue, U.S. Patent No. 6,104,306, in view of Fantone et al., U.S. Patent No. 6,283,374. Claims 2 and 44 are cancelled. Claims 1 and 3-43, as amended, overcome the rejection based upon Hogue and Fantone.

A. Claim 1.

Claim 1, as amended, recites a sensor including a substrate having a first surface and a second opposite surface, a first element imprinted on the first surface and a second element imprinted on the second surface. The first element includes a first electroconductive material and is visually indiscernible from proximate portions of the first surface. The second element includes a second electroconductive material and is visually indiscernible from proximate portions of the second surface.

Neither Hogue nor Fantone, alone or in combination, disclose or suggest a sensor which includes first and second elements imprinted upon first and second opposite surfaces, wherein the first and second elements are visually indiscernible from proximate portions of such surfaces. In contrast, Hogue merely discloses a closure-sensitive signaling device which relies upon an electrically conductive switch

hook resiliently biased by a coil spring 152 against an electrically conductive raised bridge 156 to complete a circuit such that signal generator 136 provides an audible signal or sound. Nowhere does Hogue disclose or suggest that the switch hook or the bridge 156 are imprinted or are visually indiscernible from proximate portions of the surface upon which they are imprinted.

In acknowledgement of the fact that Hogue does not disclose an element imprinted on the substrate, wherein the element is visually indiscernible from the substrate, the Office Action attempts to additionally rely upon Fantone. However, Fantone also fails to disclose or suggest the first and second elements imprinted on first and second opposite surfaces of a substrate, wherein the first and second elements are visually indiscernible from the proximate portions of their respective surfaces. In contrast, Fantone merely discloses an imager/reader having an illumination carrier 134 fabricated from a transparent material, where the surface of the carrier is coated with a transparent or clear electroconductive material or is provided with relatively thin electrically conductive strips of ink or wire 136 to electrically connect LED's 132.

In apparent recognition that neither Hogue nor Fantone individually disclose a sensor having visually indiscernible first and second elements imprinted on first and second opposite surfaces, the Office Action attempts to assert that it would be obvious to modify Hogue to include visually indiscernible imprinted conductive elements on the substrate of Hogue as taught by Fantone for the purpose of conducting electricity. However, in contrast to the assertion made in the Office Action, it would not be obvious to modify Hogue based upon the teachings of Fantone because (1) neither Hogue nor Fantone provide any motivation or suggestion for adding visually indiscernible electroconductive elements to Hogue and (2) such a modification would seemingly destroy the intended operation of Hogue.

Neither Hogue nor Fantone provide any motivation or suggestion for modifying Hogue to include a visually indiscernible element on the substrate for conducting electricity. Hogue already includes structures for conducting electricity.

Nowhere does Hogue suggest any benefit or reason for employing conductive, visually indiscernible elements in lieu of visually discernible conductive structures shown in Figure 3. In fact, since closure-sensitive signaling device 110 is already covered by inner panel 128, alternatively forming or constructing such conductive structures so as to be visually indiscernible would be pointless.

Although Fantone discloses that illumination carrier is formed from a transparent material and may have its surface coated with transparent or clear electroconductive material, the purpose for such coatings being transparent is to permit illumination 142 (shown in Figure 11) to pass through carrier 134 and out of imager (see col. 7, lines 1-6). In contrast, Hogue does not include any light emitting diodes nor does Hogue need to permit light to pass through a transparent support supporting light emitting diodes. Accordingly, nothing in Fantone suggests to one of ordinary skill in the art any motivation or suggestion for modifying Hogue so as to make its electroconductive structures visually indiscernible. Since neither Hogue nor Fantone provide any rationale for the modification suggested in the Office Action, the Office Action's rejection of Claim 1 based upon Hogue and Fantone would appear to be based upon impermissible hindsight reasoning using Applicant's own disclosure as a blueprint.

Moreover, it would also not be obvious to modify the closure-sensitive signaling device of Hogue based upon the teachings of Fantone since such a modification would destroy the intended functioning of the device of Hogue (see MPEP 2143.01: THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART UNSATISFACTORY FOR ITS INTENDED PURPOSE and THE PROPOSED MODIFICATION CANNOT CHANGE THE PRINCIPLE OF OPERATION OF A REFERENCE). Hogue discloses a cantilevered switch 140 which is resiliently biased into engagement with an electroconductive bridge 156. Upon lifting of panel 116, switch 140 is resiliently biased into engagement with bridge 156 to complete a circuit so as to power signal generator 136. The only two electroconductive surfaces appear to be disclosed by Hogue are cantilevered switch 140 and bridge 156. However, alternatively replacing both structures with a

transparent glass or plastic coated with a transparent electroconductive material (as taught by Fantone) would presumably destroy the intended operation of Hogue. Thus, Claim 1, as amended, overcomes the rejection based upon Hogue in view of Fantone. Claims 3-8 and 11-13 depend from Claim 1 and overcome the rejection for the same reasons.

B. Claim 14.

Claim 14, as amended, recites a sensor imprinted on a substrate. The sensor includes a first element containing electroconductive material, a second element selectively movable into and out of contact with the first element, a power source in electrical communication with one of the first and second elements, a power consuming device in electrical communication with the other of the first and second elements, wherein the power source and the power consuming device are in electrical communication when the first and second elements are in contact with one another and wherein the electroconductive material in the first element is visually indiscernible from the substrate.

Neither Hogue nor Fantone, alone or in combination, disclose or suggest a sensor having first and second elements that are selectively movable into and out of contact with one another, wherein the contacts, when in contact, provide electrical communication between a power source and a power consuming device and wherein one of the elements includes electroconductive material visually indiscernible from the substrate. In contrast, Hogue merely discloses an enclosure-sensitive signaling device having a cantilevered switch 140 in contact with a bridge 156 to complete a circuit. Nowhere does Hogue disclose or suggest that either switch 140 or bridge 156 is formed from a visually indiscernible, electroconductive material.

In apparent recognition of the deficiency of Hogue, the Office Action attempts to additionally rely upon Fantone. However, Fantone merely discloses an imager 30 which includes an illumination device carrier 134 fabricated from a transparent glass or plastic material and having a surface coated with transparent or clear

electroconductive material to electrically connect LEDs 132. Neither Hogue nor Fantone provide any suggestion or motivation to alternatively replace either switch 140 or bridge 156 with a visually indiscernible electroconductive material imprinted upon a substrate.

In rejecting Claim 14, the Office Action asserts that "It would have been obvious at the time the invention was made to a person of ordinary skill in the art to include the element being visually indiscernible from the substrate to the sensor of Hogue as taught by Fantone for the purpose of conducting electricity." However, Hogue already discloses structures that conduct electricity. Hogue fails to provide any motivation or suggestion for making such electrically conducting structures visually indiscernible. In fact, since the enclosure-sensitive signaling device of Hogue is already covered by inner panel 128, making such electroconductive structures indiscernible would be pointless. Since the sole reason that Fantone uses transparent, electroconductive coating upon its device carrier 134 is to permit illumination to pass through device carrier 134 and since no need exists in Hogue for transmitting light through panels 114 or 116, Fantone also fails to provide any motivation or suggestion for modifying Hogue to make its electroconductive structures visually indiscernible. Thus, Claim 14, as amended, overcomes the rejection based upon Hogue and Fantone. Claims 15-20 depend from Claim 14 and overcome the rejection for the same reasons.

C. Claim 21.

Claim 21 recites a device having at least two surfaces in movable relationship to one another. The device includes a first substrate associated with a first surface and a second substrate associated with a second surface in removable overlying relationship to the first surface. Claim 21 further recites at least one electrically active element imprinted on at least one of the first and second substrates. The electrically active element has at least one region of electroconductive material, wherein at least a portion of the region of electroconductive material is visually indiscernible relative to the associated substrate.

Nether Hogue nor Fantone, alone or in combination, disclose or suggest a device having first and second substrates with first and second surfaces that are in removable overlying relationship to one another and wherein at least one of the first and second substrates includes an electrically active element having at least one region of electroconductive material that is visually indiscernible relative to the associated substrate. In contrast, Hogue merely discloses cantilevered switch 140 and bridge 156. Neither switch 140 nor bridge 156 has an electrically active element imprinted on a substrate that is visually indiscernible relative to the substrate.

In apparent recognition of this deficiency of Hogue, the Office Action attempts to additionally rely upon Fantone and asserts that it would be obvious to provide Hogue with an element that is visually indiscernible from the substrate for the purpose of conducting electricity. However, as previously noted above with respect to Claims 1 and 14, Hogue already discloses a light being capable of conducting electricity. Neither Hogue nor Fantone provide any motivation for additionally being formed from an electrically active element imprinted on a substrate and being visually indiscernible relative to the associated substrate. Accordingly, the rejection of Claim 21 is improper and should be withdrawn.

D. Claim 38.

Claim 38 ultimately depends from Claim 21 and further recites that at least one of the first and second substrates is composed of a flexible nonconductive material including at least one of paper, plastic and woven fabric.

Neither Hogue nor Fantone, alone or in combination, disclose or suggest an electrically active element imprinted upon a substrate composed of a flexible nonconductive material including at least one of paper, plastic or woven fabric. In contrast, as noted above, Hogue fails to disclose an electrically active element imprinted upon a substrate. Hogue also fails to disclose an electrically active element imprinted upon a substrate that is flexible and nonconductive. Fantone fails to satisfy the deficiencies of Hogue. Although Fantone discloses that illumination carrier 134 is fabricated from a transparent material such as glass or plastic,

nowhere does Fantone disclose or suggest that illumination device carrier 134 is flexible. Thus, Claim 38, as amended, overcomes the rejection based upon Hogue and Fantone for this additional reason.

E. Claim 39.

Claim 39 also depends from Claim 21 and further recites that the first and second substrates are integrated into a Codex.

Neither Hogue nor Fantone, alone or in combination, disclose an electrically active element imprinted upon the first and second substrates integrated into a Codex. Thus, Claim 39 overcomes the rejection based upon Hogue and Fantone for this additional reason.

F. Claim 41.

Claim 41 ultimately depends from Claim 21. Claim 41, as amended, recites the device further includes electroluminescent features and a control mechanism for illuminating the electroluminescent features. Support to the amendments to Claim 41 are found on page 5, lines 1-3 of the present application. Thus, no new matter is believed to be added.

Neither Hogue nor Fantone, alone or in combination, disclose or suggest electroluminescent features. Accordingly, Claim 41, as amended, overcomes the rejection based upon Hogue and Fantone for this additional reason.

G. Claim 43.

Claim 43, as amended, recites a sensor including at least one element containing at least one electroconductive material and at least one active region configured in at least one of an inductive mode and a capacitive mode. Claim 43 further recites means for supporting the element, wherein the element is visually indiscernible from the support means.

Neither Hogue nor Fantone, alone or in combination, disclose or suggest a sensor having at least one element containing at least one electroconductive material and at least one active region configured in at least one of an inductive mode and a capacitive mode. In contrast, Hogue merely discloses a closure-sensitive device which does not employ induction or a capacitor. Likewise, Fantone merely discloses an imager 30 which does not employ induction or a capacitor. Thus, Claim 43, as amended, overcomes the rejection based upon Hogue and Fantone.

III. Added Claims.

With this response, Claims 45-52 are added. Consideration and allowance of Claims 45-52 are respectfully requested.

A. Claims 45 and 51.

Claim 45 depends from Claim 1 and recites that the first element and the second element are configured in an induction mode. Claim 51 recites a sensor having at least one element imprinted on a substrate and configured in an induction mode. Neither Hogue, Fantone nor the prior art of record disclose or suggest an element imprinted on a substrate that is visually indiscernible from the substrate and that is configured in an induction mode. Thus, Claims 45 and 51 are patentably distinct over the prior art of record.

B. Claims 46 and 52.

Claim 46 depends from Claim 1 and recites that the first element and the second element are configured in a capacitive mode. Claim 52 recites a sensor including at least one element imprinted upon a substrate, wherein the at least one element is visually indiscernible from the substrate and is configured in a capacitive mode. Neither Hogue, Fantone nor the prior art of record disclose or suggest a sensor configured in a capacitive mode. Thus, Claims 46 and 52 are patentably distinct over the prior art of record.

C. Claim 47.

Claim 47 depends from Claim 1 and recites the substrate includes a first panel providing one of the two opposite surfaces and a second panel providing the other of the two opposite surfaces, wherein the first panel and the second panel are pivotally coupled to one another.

Neither Hogue, Fantone nor the prior art of record disclose or suggest first and second panels pivotally coupled to one another, wherein the first and second elements including visually indiscernible electroconductive material are imprinted upon each of the first and second panels. In contrast, the closure-sensitive signaling device of Hogue merely extends along a single panel 126. Nowhere does Hogue disclose or suggest anything imprinted or secured to panel 116. Thus, Claim 47 is patentably distinct over the prior art of record.

D. Claim 48.

Claim 48 depends from Claim 47 and further recites at least one of an alphanumeric symbol and a graphic imprinted upon the first panel. Neither Hogue, Fantone nor the prior art of record disclose or suggest an alphanumeric symbol or a graphic imprinted upon a panel, wherein the panel also has imprinted upon it an element having an electroconductive material that is visually indiscernible from the panel. Accordingly, added Claim 48 is patentably distinct over the prior art of record.

E. Claim 49.

Claim 49 depends from Claim 47 and further recites that the first panel and the second panel are joined by a fold. Neither Hogue, Fantone nor the prior art of record, alone or in combination, disclose first and second panels joined by a fold, wherein the first and second elements are printed on each of the first and second panels and wherein the elements include electroconductive material that is visually indiscernible from the panels. Accordingly, added Claim 49 is believed to be patentably distinct over the prior art of record.

F. Claim 50.

Claim 50 depends from Claim 1 and further recites that the substrate is opaque.

Neither Hogue, Fantone nor the prior art of record, alone or in combination, disclose or suggest a sensor having first and second elements imprinted upon an opaque substrate, wherein the elements include electroconductive material that is visually indiscernible from the substrate. As acknowledged by the Office Action, Hogue fails to disclose an element imprinted upon a substrate, wherein the element includes electroconductive material that is visually indiscernible from the substrate. Although Fantone discloses that the surface of illumination carrier 134 is coated with a transparent or clear electroconductive material, Fantone requires device carrier 134 to also have a transparent substrate. Thus, Claim 50 is believed to be patentably distinct over the prior art of record.

IV. Conclusion.

After amending the claims as set forth above, claims 3-8, 11-43 and 45-52 are now pending in this application.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 08-2025. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 08-2025. If any

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extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 08-2025.

Respectfully submitted,

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By Todd A. Rathe

FOLEY & LARDNER LLP
Customer Number: 22879
Telephone: (414) 297-5710
Facsimile: (414) 297-4900

Todd A. Rathe
Attorney for Applicant
Registration No. 38,276